

4. *Euthria interrupta*, sp. n. (Pl. XI. fig. 4.)

Testa acuminato-fusiformis, solidiuscula, luteo-fusca, atro-fusco interruptim lineata; spira acuminata, acutiuscula; anfractus 8, convexiusculi, supra breviter canaliculati, ubique liris fuscis (hic illic plus minusve albo articulatis) angustis vix elevatis (in anfr. penult. 4, in anfr. ult. 13) ornati, sutura angustissime canaliculata sejuncti; anfractus ultimus spiram superans, ad basim constrictus vix productus; apertura oblongo-ovata, intus purpureo-fusco late trifasciata, canali lato brevissimo; columella in medio arcuata, infra callosa, leviter recurva.

Long. 28, diam. 14 mm.

Hab. Satsuma, Japan.

Compared with *E. plumbea*, Phil. (= *viridula*, Dkr., and *ferrea*, Reeve), this species has a much longer body-whorl and shorter spire. The articulated linear liræ and the three broad purplish bands shown in the aperture are characteristic.

5. *Conus Grangeri*, sp. n. (Pl. XI. fig. 5.)

Testa elongato-turbinata, albida, luteo late fasciata, et promiscue picta, liris transversis numerosis rugosis subplanulatis instructa; spira conica, mediocriter elevata; anfractus 9, concavo-declives, spiraliter dense grano-lirati, striis obliquis decussati, carina acutiuscula leviter nodulosa marginati; apertura mediocriter lata, alba.

Long. 45, diam. 22 mm.

Hab. Unknown.

Compared with *C. granulatus*, Linn., this species is less cylindrical in form, and the whorls of the spire are quite different, being distinctly concave and bordered by a sharp ridge, which on the upper whorls is slightly nodulose. The spire is more like that of *C. sulcatus*, Brug., from which species the form of the shell is entirely different.

LX.—*A List of the Species of Cyaniris, a well-known Group of the Family Lycænidae.* By A. G. BUTLER, Ph.D., F.L.S., F.Z.S., &c.

So many Lycænidae have been described under the general terms *Lycæna*, *Plebeius*, and *Cupido* by those who ignore structural characters in this family which they allow in other families of butterflies, that one can never be absolutely certain of having recognized all the waifs and strays; but, so

far as I have been able to ascertain, the following seems to represent a complete list.

The genus *Cyaniris* is characterized among the smooth-eyed genera without tails by having the costal vein of the primaries united by a short frenum (or cross-vein) to the first subcostal branch; in its neururation therefore it nearly approaches *Pepliphorus* (*P. hylas*, Cramer, and allies), a genus of tailed Lycænidae with densely hairy eyes.

This cross-vein in *Cyaniris* distinguishes it at once from *Lycanopsis*, just as the cross-vein of *Pepliphorus* separates it from *Lampides*, to which, in spite of its more *Thysanotis*-like colouring, it is undoubtedly nearly related.

From the variable character of some of the males in *Cyaniris* it is not easy to split it up into groups, but De Nicéville has separated the earlier species by the broad dark costal border.

1. *Cyaniris Pryeri*.

Lycæna Pryeri, Murray, Ent. Month. Mag. x. p. 126 (1873).

Japan. B. M.

2. *Cyaniris akasa*.

♀. *Polyommatus akasa*, Horsfield, Cat. Lep. E. I. Co. p. 67, pl. i. figs. 1, 1 a (1828).

Java. Type, B. M.

3. *Cyaniris vardhana*.

Polyommatus vardhana, Moore, P. Z. S. 1874, p. 572, pl. lxvi. fig. 5.

Western India. B. M.

4. *Cyaniris victoria*.

Cyaniris victoria, Swinhoe, Trans. Ent. Soc. 1893, p. 293.

Shillong. Type, B. M.

5. *Cyaniris marginata*.

♂. *Cyaniris marginata*, De Nicéville, Journ. A. S. B. vol. lii. p. 70, pl. i. fig. 9 (1883).

N. India, Burma. B. M.

6. *Cyaniris cossæa*.

Cyaniris cossæa, De Nicéville, Journ. Bomb. N. H. S. ix. p. 271, pl. O. figs. 14, 15 (1895).

N.E. Sumatra.

Belongs to the group with blackish costal area to the primaries, and should probably stand next to *C. melæna*.

7. *Cyaniris melæna*.

Cyaniris melæna, Doherty, J. A. S. B. lviii. p. 434, pl. xxiii. fig. 13 (1889).

Lower Tenasserim.

Broad border and dark costa, but no white patch.

8. *Cyaniris albocæruleus*.

Polyommatus albocæruleus, Moore, P. Z. S. 1879, p. 139; not Leech, Butt. China, pl. xxxi. fig. 13 (1893).

Sikkim and Bhotan. B. M.

9. *Cyaniris transpectus*.

Polyommatus transpectus, Moore, P. Z. S. 1879, p. 139.

Cyaniris latimargo, Moore, P. Z. S. 1883, p. 523, pl. xlvi.

Sikkim, Tenasserim, Burma. B. M.

10. *Cyaniris puspa*.

Polyommatus puspa, Horsfield, Cat. Lep. E. I. Co. p. 67 (1828); ♀. De Nicéville, J. A. S. B. lii. pl. i. fig. 5a (1883).

Var. ♂. *Polyommatus lavendularis*, Moore, Ann. & Mag. Nat. Hist. (4) xx. p. 341 (1877).

Cyaniris puspa, var. *lilacea*, Hampson, J. A. S. B. lvii. p. 356 (1889).

Cyaniris crissa, De Nicéville, l. c. lxiii. p. 31, pl. ii. fig. 12 (1895).

India, Burma, Ceylon, Java. B. M.

11. *Cyaniris plauta*.

Cyaniris plauta, H. H. Druce, P. Z. S. 1895, p. 574, pl. xxxii. figs. 8, 9.

Borneo.

Male somewhat like *C. puspa*, var. *crissa*; female much more white.

12. *Cyaniris sonchus*.

Cyaniris sonchus, H. H. Druce, P. Z. S. 1896, p. 655, pl. xxix. fig. 4.

Borneo.

A very broad-bordered form, with no white patches on upper surface and distinctly marked under surface.

13. *Cyaniris timorensis*, sp. n.

♂. Nearly allied to *C. puspa*; differing in the much greater width of the black-brown border on upper surface of primaries; on the under surface the spots of the discal series of primaries are large, but those of secondaries small in proportion. In the type the white patch on the primaries is

small and trifold, that on the secondaries represented by a single longitudinal streak; but these characters are probably variable, as in *C. puspa*.

Expanse of wings 33 millim.

Timor. Type, B. M.

14. *Cyaniris dammæ*.

Cyaniris dammæ, Heron, Ann. & Mag. Nat. Hist. (6) xiv. p. 104 (1894).

Damma Island, Wetter. Type, B. M.

15. *Cyaniris splendens*, sp. n.

♂. Allied to *C. puspa*, of a much deeper and more brilliant blue; the black border considerably broader, especially at apex of primaries; a bifid oblique white streak on the primaries (divided by the second median branch), a double streak on the secondaries divided by the second subcostal branch; spots on the under surface very large; the costal area of primaries widely suffused with brown.

Expanse of wings 34 millim.

Larut Hills, Perak (*S. S. Flower*). Type, B. M.

16. *Cyaniris Kühni*.

Plebeius Kühni, Röber, C. B. Iris, 1886, p. 60, pl. iv. fig. 29.

Ké Island and E. Celebes; near Macassar. B. M.

17. *Cyaniris carna*.

♂. *Cyaniris carna*, De Nicéville, J. Bomb. N. II S. ix. p. 274, pl. O. fig. 18 (1895).

N.E. Sumatra.

Near to *C. albidisca*, but with larger white patches on the wings.

18. *Cyaniris albidisca*.

♂. *Cyaniris albidisca*, Moore, P. Z. S. 1883, p. 524, pl. xlvi. fig. 7.

S. India, Nilgiris. B. M.

19. *Cyaniris imperatrix*, sp. n.

♂. Brilliant ultramarine-blue: the primaries with the costal margin brown; outer border widely black-brown on costa, narrowing very regularly to submedian vein, where (including the fringe) it measures $1\frac{1}{2}$ millim.: secondaries with dark brown costal border widening at apex, where it

joins a narrower outer border of blackish brown: wings below white; markings as in *C. puspa*, but the submarginal line and spots well defined.

Expanse of wings 35 millim.

Siam (*Bowring*). Type, B. M.

20. *Cyaniris cayaya*.

Lycæna cayaya, Felder, Reise der Nov., Lep. ii. p. 278, pl. xxxiv. figs. 11-13 (1865).

"Luzon." Id. ?; ♂, Malacca; ♀, Salangor. B. M.

The species from Malacca shows a rather wider border to the primaries of the male and to all the wings of the female than in Felder's figures; but otherwise it is very similar. *C. placida* appears to me to be abundantly distinct.

21. *Cyaniris cinctuta*.

Cyaniris cinctuta, Grose-Smith, Novit. Zool. ii. p. 506 (1895).

"Ternate, Batchian, Gilolo." Ternate, Amboina. B. M.

22. *Cyaniris jynteana*.

Cyaniris jynteana, De Nicéville, Journ. A. S. B. lii. p. 69, pl. i. figs. 7, 7 a (1883).

♂. *Cyaniris sikkima*, Moore, P. Z. S. 1883, p. 524, pl. xlvi. fig. 11.

Sikkim. B. M.

23. *Cyaniris placidula*.

Cyaniris placidula, H. H. Druce, P. Z. S. 1895, p. 572, pl. xxxii. figs. 6, 7.

Borneo.

Near *C. jynteana*; front-wing border narrower.

24. *Cyaniris cyanescens*.

Cyaniris cyanescens, De Nicéville, Butt. Ind. iii. p. 103, frontisp. fig. 129 (1890).

Nicobars.

Allied to *C. jynteana*; bluer, with narrower black border; under surface yellowish stone-colour.

25. *Cyaniris strophis*.

Cyaniris strophis, H. H. Druce, P. Z. S. 1895, p. 573, pl. xxxii. fig. 4.

Borneo.

Near to *C. cyanescens*.

26. *Cyaniris ripte*.

♂. *Cyaniris ripte*, H. H. Druce, P. Z. S. 1895, p. 574, pl. xxxii. fig. 11.
Borneo.

Above like *C. musina*, brighter; below clouded with brown.

27. *Cyaniris camenæ*.

Cyaniris camenæ, De Nicéville, J. Bomb. N. H. S. ix. p. 278, pl. O. fig. 22 (1895).

"Perak." Id.; ? var., Perak. B. M.

28. *Cyaniris lyce*.

Cyaniris lyce, Grose-Smith, Novit. Zool. ii. p. 506 (1895).

S. Celebes.

Compared with *C. puspa* and *C. Kühni*, but apparently nearer to *C. camenæ*, the blue being dull and the borders narrow.

29. *Cyaniris lyseas*.

Cyaniris lyseas, Grose-Smith, Novit. Zool. ii. p. 507 (1895).

Batchian.

Nearly related to *C. lyce*, but more lilacine; only two dark subanal spots between the veins on the secondaries; the submarginal lines below less zigzag: wings rounder in outline.

30. *Cyaniris philippina*.

Cyaniris philippina, Semper, Reisen Philipp. ii. v. p. 168, pl. xxxii. figs. 14-18 (1889).

Philippines.

Seems allied to *C. musina*, but the figures are so poor that they may perhaps be misleading.

31. *Cyaniris musina*.

Cyaniris musina (Snellen), De Nicéville, J. Bomb. N. H. S. ix. p. 275, pl. O. fig. 19 (1895).

Burmah. B. M.

32. *Cyaniris Chennellii*.

♂. *Cyaniris Chennellii*, De Nicéville, Journ. A. S. B. lii. p. 72, pl. i. fig. 10 (1883).

Shillong. B. M.

33. *Cyaniris lugra*.

Cyaniris lugra, H. H. Druce, P. Z. S. 1895, p. 573, pl. xxxii. fig. 5.

Borneo.

Near to *C. puspinus*, darker and rather larger.

34. *Cyaniris puspinus*.

Plebeius puspinus, Kheil, Rhop. Ins. Nias, p. 30, pl. v. figs. 37-39 (1884).

Nias. B. M.

35. *Cyaniris phuste*.

Cyaniris phuste, H. H. Druce, P. Z. S. 1895, p. 573, pl. xxxiv. fig. 17.

Dili.

Nearly allied to *C. puspinus*.

36. *Cyaniris selma*.

Cyaniris selma, H. H. Druce, P. Z. S. 1895, p. 573, pl. xxxii. fig. 10.

Borneo.

Near to *C. puspinus*.

37. *Cyaniris nedda*.

Cyaniris nedda, Grose-Smith, Novit. Zool. i. p. 572 (1894).

“Batchian, Ternate, Dutch New Guinea, Dorey, Celebes.”
Dorey. B. M.

According to Grose-Smith, this species differs from *C. cardia* in its more violet-blue colour, shorter and rounder wings, rather wider outer marginal band on secondaries with complete submarginal series of spots; the under surface dusky brownish grey instead of silvery greyish white. Our example from Dorey, however, shows the latter colouring below.

38. *Cyaniris cardia*.

Lycæna cardia, Felder, Sitz. Akad. Wiss. Wien, math.-nat. Cl. xl. p. 459 (1860).

“Amboina.”

Allied to *C. nedda*.

39. *Cyaniris rona*.

Cyaniris rona, Grose-Smith, Novit. Zool. i. p. 572 (1894).

Dutch New Guinea.

Near to *C. nedda*; darker above, with narrower black margins and no submarginal black spots on secondaries.

40. *Cyaniris placida*.

♂. *Cyaniris placida*, De Nicéville, Journ. A. S. B. lii. p. 68, pl. i. fig. 8 (1883).

Sikkim, Calcutta, Silhet, Tenasserim. B. M.

41. *Cyaniris caelestina*.

Lycæna caelestina, Kollar, Hügel's Kaschmir, iv. p. 423 (1848).

Cyaniris Kollari, Westwood, Gen. Diurn. Lep. ii. p. 491 (1850).

♂. *Polyommatus kasmira*, Moore, P. Z. S. 1865, p. 503, pl. xxxi. fig. 1.

Western India, Ladakh. B. M.

42. *Cyaniris limbatus*.

Polyommatus limbatus, Moore, P. Z. S. 1879, p. 139.

Nilgiris, Mysore, Ceylon. B. M.

43. *Cyaniris ladonides*.

Lycæna ladonides, de l'Orza, Léop. Jap. p. 20 (1867).

Japan generally. B. M.

The female of this species approaches that sex of *C. limbatus*, there being a distinct indication of white scaling on the primaries above; the discal markings below are small or obsolete.

44. *Cyaniris oreas*.

Cyaniris oreas, Leech, Butt. China, p. 321, pl. xxxi. figs. 12, 15 (1893).

"China." Chusan Island and Foo Chow. B. M.

Very probably only a form of *C. ladonides*.

45. *Cyaniris argiolus*.

Papilio argiolus, Linnæus, Syst. Nat. x. p. 483 (1758).

Papilio cleobis, Sulzer, Gesch. Ins. pl. xviii. figs. 13, 14 (1776).

Papilio thersanon, Bergstrasser, Nomencl. iii. pl. liv. figs. 5, 6 (1779).

Papilio argyrophontes, id. t. c. pl. xlix. figs. 5, 6.

Papilio argalus, id. t. c. pl. lviii. figs. 5, 6, pl. lx. figs. 4, 5.

Papilio marginatus, Retz. Gen. Ins. p. 30 (1783).

Europe. B. M.

46. *Cyaniris Levettii*.

Lycæna Levettii, Butler, Ann. & Mag. Nat. Hist. (5) xi. p. 111 (1883).

Western Corea. Type, B. M.

I cannot admit the identity of this species with the European *C. argiolus*. The male above resembles *C. limbatus* ♂; the female is much more broadly bordered and duller in colouring than any example of *C. argiolus*. Its nearest ally is certainly *C. lanka*.

47. *Cyaniris lanka*.

Polyommatus lanka, Moore, Ann. & Mag. Nat. Hist. (4) xx. p. 342 (1877).

♂. *Cyaniris lanka*, Moore, Lep. Ceylon, i. p. 76, pl. xxxv. figs. 2, 2a (1881).

Ceylon. B. M.

48. *Cyaniris singalensis*.

Lycæna singalensis, Felder, Verh. zool.-bot. Gesellsch. Wien, xviii. p. 282 (1868).

♂. *Cyaniris singalensis*, Moore, Lep. Ceylon, i. p. 76, pl. xxxv. figs. 1, 1a (1881).

Ceylon. B. M.

49. *Cyaniris Huegelii*.

Cyaniris Huegelii, Moore, P. Z. S. 1882, p. 244.

Western Himalayas. B. M.

We have a male from the Chitral which appears to me to be a dry form of this species; in colouring it is somewhat bluer than the typical form, but so is a dry form of the female from Rawul Pindi.

50. *Cyaniris nebulosa*.

Cyaniris nebulosa, Leech, Entomologist, xxiii. p. 43 (1890); Butt. China, p. 322, pl. xxxi. fig. 18 (1893).

China.

A species with very broad borders, apparently nearest to *C. Hügelii*.

51. *Cyaniris ladon*.

Papilio ladon, Cramer, Pap. Exot. iii. pl. cclxx. D, E (1782).

Argus pseudargyolus, Boisduval & Leconte, Lep. Am. Sept. p. 118, pl. xxxvi. figs. 1-5 (1833).

Lycæna lucia, Kirby, Fauna Bor.-Am. iv. p. 299, pl. iii. figs. 8, 9 (1837).

Lycæna violacea, W. H. Edwards, Proc. Ent. Soc. Phil. vi. p. 201 (1866); Butt. N. Am. i., *Lyc.* pl. i. figs. 1-4 (1868) (*L. nigra*, pl. xlix.).

Lycæna neglecta, W. H. Edwards, Proc. Ac. Nat. Sci. Phil. 1862, p. 57; Butt. N. Am. i., *Lyc.* pl. ii. (1870).

Var. *Lycæna cinerea*, W. H. Edwards, *Papilio*, iii. p. 8 (1883).

Pacific form:—

Lycæna piusius, Boisduval, Lep. Calif. p. 299 (1852).

Var. *Lycæna echo*, Edwards, Proc. Ent. Soc. Phil. ii. p. 506 (1864).

United States. B. M.

Mr. Leech's statement that *C. ladon* "is a species from the Cape of Good Hope" is based upon the incorrect locality

given by Cramer. Mr. Trimen does not include it in his 'South-African Butterflies,' being evidently satisfied that it never came from the Old World.

52. *Cyaniris dilectus*.

Polyommatus dilectus, Moore, P. Z. S. 1879, p. 139.

♂. *Cyaniris dilectus*, De Nicéville, Journ. A. S. B. vol. lii. p. 68, pl. i. fig. 5 (1883).

Nepal, Sikkim, Silhet, Assam. B. M.

53. *Cyaniris dilectissima*.

Cyaniris dilectissima, H. H. Druce, P. Z. S. 1895, p. 571, pl. xxxii. figs. 2, 3.

Borneo.

Very close to *C. dilectus*.

54. *Cyaniris coalita*.

Cyaniris coalita, De Nicéville, J. Bomb. N. H. S. vi. p. 363, pl. F. figs. 12, 13 (1891).

Java.

Seems to me remarkably close to some examples of *C. dilectus* in both sexes; but Mr. De Nicéville points out that the series of discal spots on underside of primaries runs into the submarginal series, whereas in *C. dilectus* the two series are separate.

55. *Cyaniris corythus*.

Cyaniris corythus, De Nicéville, J. Bomb. N. H. S. ix. p. 273, pl. O. figs. 16, 17 (1895).

N.E. Sumatra. B. M.

56. *Cyaniris ceyx*.

Cyaniris ceyx, De Nicéville, J. Bomb. N. H. S. vii. p. 328, pl. H. figs. 6, 7 (1892).

"Java." Foo Chow. B. M.

This is the *C. albocæruleus* of Leech's 'Butterflies of China,' but not of Moore. Beyond the fact that the Chinese examples are rather larger than those from Java appear to be, I see no difference likely to be constant.

57. *Cyaniris hersilia*.

♀. *Cyaniris hersilia*, Leech, Butt. China, p. 319, pl. xxxi. fig. 16 (1893).

China.

An unusually white female, reminding one somewhat of that sex of *Lampides conferenda* = *pura*.

SPECIES INCERTÆ SEDIS.

58. *Cyaniris? catreus*.

Cyaniris catreus, De Nicéville, J. Bomb. N. H. S. ix. p. 276, pl. O. figs. 20, 21 (1895).

W. Java.

This species appears to me to be a *Lycænoopsis*, in which genus the costal and first subcostal veins are not united by a frenum. If I am wrong, it will have to stand near *C. dammæ* and allies; but the under surface is far more like *Lycænoopsis haraldus*.

59. *Cyaniris? deliciosa*.

Cupido deliciosa, Pagenstecher, Ent. Nachr. xxii. p. 50 (1896); Abh. Senck. Ges. xxiii. p. 416, pl. xx. fig. 8 (1897).

Celebes.

Appears to me to be a *Lycænoopsis*.

60. *Cyaniris? cara*.

Cyaniris cara, De Nicéville, Journ. Bomb. N. H. S. xii. p. 143, pl. Z. figs. 19, 20 (1898).

Celebes.

Mr. De Nicéville knows his genera of Lycænidæ; otherwise I should certainly have supposed this to be a *Lycænesthes* near to *L. Turneri*.

LXI.—ASIATIC *TORTRICIDÆ*.

By the Rt. Hon. LORD WALSHINGHAM, M.A., LL.D., F.R.S.

[Continued from p. 386.]

TORTRIX, L.

715 (1). *Tortrix dumetana*, Tr.

Tortrix (Pandemis) dumetana, Stgr. & Wk. Cat. Lp. Eur. 236. No. 702 (1871). *Tortrix dumetana*, Meyr. HB. Br. Lp. p. 538 (1895).

Hab. EUROPE. COREA—Gensan, VI. 1886 (*Leech*). JAPAN—YESSO—Hakodate, VIII. 1886 (*Leech*). KASHMIR—Scinde Valley, 7000 feet, VI. 1887 (*Leech*).